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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/697,280	10/31/2003	Eiichiro Kimizuka	03500.01700	8434

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EXAMINER

CHEN, SOPHIA S

ART UNIT PAPER NUMBER

2852

DATE MAILED: 03/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/697,280

Applicant(s)

KIMIZUKA, EIICHIRO

Examiner

Sophia S. Chen

Art Unit

2852

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10 and 11 is/are allowed.
- 6) ☒ Claim(s) 1 and 8 is/are rejected.
- 7) ☒ Claim(s) 2-7 and 9 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections – 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Omura (US Pat. Pub. No. US 2002/0127038 A1) in view of Shimizu (JP 2003-280293 A).

Omura discloses an image forming apparatus having a sheet transport apparatus that re-transport a sheet S having an image formed by an image forming portion 26 on a first surface of the sheet S, to the image forming portion so as to form an image on a second surface, opposite to the first surface, of the sheet S (paragraphs [0035] and [0036]; Figure 1), the image forming apparatus comprising: the image forming portion 26; a re-transport path 59 through which the sheet S having the image on the first surface of the sheet S is re-transported to the image forming portion 26 (Figure 1); an electrical substrate (controller board) 24 (paragraph [0039]); and a shield plate 60 (Figure 1).

Omura differs from the instant claimed invention in not disclosing cooling means for blowing air against the sheet passing through the re-transport path in order to cool the sheet, wherein the air after cooling the sheet by having been blown from the cooling means against the sheet is prevented from striking the electrical substrate.

Shimizu discloses an image forming apparatus comprising an image forming portion 104; a re-transport path 39a or 59a; and cooling means A or B for blowing air against a sheet passing through the re-transport path 39a or 59a in order to cool the sheet (abstract; Figures 2 and 3).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the cooling means as taught by Shimizu to the re-transport path of Omura to efficiently cool the heated sheet on the re-transport path (Shimizu, abstract).

Since the shield plate 60 is disposed in between the re-transport path 59 and the electrical substrate 24 (Omura, Figure 1), the air is prevented from striking the electrical substrate (when the cooling means A or B is disposed below the re-transport path 39a or 59a as taught by Shimizu, see Figures 2 and 3 of Shimizu).

3. Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

4. Claims 1 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Omura in view of Mitsuya et al. (US Pat. No. 4,959,693)

Omura discloses an image forming apparatus having a sheet transport apparatus that re-transport a sheet S having an image formed by an image forming portion 26 on a first surface of the sheet S, to the image forming portion so as to form an image on a second surface, opposite to the first surface, of the sheet S (paragraphs [0035] and [0036]; Figure 1), the image forming apparatus comprising: the image forming portion

26; a re-transport path 59 through which the sheet S having the image on the first surface of the sheet S is re-transported to the image forming portion 26 (Figure 1); an electrical substrate (controller board) 24 (paragraph [0039]); and a shield plate 60 (Figure 1).

Omura differs from the instant claimed invention in not disclosing cooling means for blowing air against the sheet passing through the re-transport path in order to cool the sheet, wherein the air after cooling the sheet by having been blown from the cooling means against the sheet is prevented from striking the electrical substrate.

Mitsuya et al. discloses an image forming apparatus comprising an image forming portion 3; a re-transport path 6; and cooling means 31 for blowing air against a sheet passing through the re-transport path 6 in order to cool the sheet (column 10, lines 34-40 and Figure 8).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the cooling means as taught by Mitsuya to the re-transport path of Omura to prevent the toner image from coming into contact with any parts (Mitsuya et al., column 3, lines 26-29).

Since the shield plate 60 is disposed in between the re-transport path 59 and the electrical substrate 24 (Omura, Figure 1), the air is prevented from striking the electrical substrate (when the cooling means 31 is disposed outside the re-transport path 6 as taught by Mitsuya et al., see Figure 8 of Mitsuya et al.).

Allowable Subject Matter

5. Claims 10 and 11 are allowed.

6. Claims 2-7 and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter: Claim 10 is allowable over the prior art of record because the prior art of record does not teach or suggest the electrical substrate, the fan, and the re-transport path are arranged in the named order from an upstream side along a flowing direction of the air blown from the fan as set forth in the claimed combination.

Other Prior Art

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Sumiyoshi (US Pat. No. 6,256,464 B1) discloses an image forming apparatus comprising an image forming portion; a re-transport path; and cooling means.

Ahn et al. (US Pat. No. 6,564,019 B2) discloses an image forming apparatus comprising an image forming portion; a re-transport path; and the re-transport path being detachably attachable to the apparatus.

Hattori et al. (US Pat. Pub. No. US 2004/0131378 A1) discloses an image forming apparatus comprising an image forming portion; a re-transport path; an electrical substrate; and cooling means (not prevented from striking the electrical substrate).

Kuwabara (JP 01-242327 A) discloses an image forming apparatus comprising an image forming portion; a re-transport path; and cooling means.

Kinoshita et al. (JP 07-239647 A) discloses an image forming apparatus comprising an image forming portion; a re-transport path; and cooling means.

Arai (JP 11-015209 A) discloses an image forming apparatus comprising an image forming portion; a re-transport path; and cooling means.

Sakamoto (JP 2000-338727 A) discloses an image forming apparatus comprising an image forming portion; a re-transport path; and cooling means.

Sugino (JP 2002-096942 A) discloses an image forming apparatus comprising an image forming portion; a re-transport path; and cooling means.

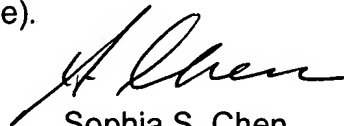
Oikawa (JP 2002-241022 A) discloses an image forming apparatus comprising an image forming portion; a re-transport path; and cooling means.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sophia S. Chen whose telephone number is (571) 272-2133. The examiner can normally be reached on M-F (7:00-3:00) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Arthur Grimley can be reached on (571) 272-2136. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Sophia S. Chen
Primary Examiner
Art Unit 2852

Ssc
March 1, 2005